

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

Claims 1-5 (canceled).

6. (new) A path size control method for a cross-connecting device connected to an upstream side cross-connecting device via a first transmission line and to a downstream side cross-connecting device via a second transmission line so as to relay a communication frame received from the first transmission line to the second transmission line in a Synchronous Digital Hierarchy/Synchronous Optical Network (SDH/SONET) network, the method comprising the steps of:

detecting index information indicating a size of a path from H1 and H2 bytes of a header of a first communication frame received from the first transmission line;

setting new index information into H1 and H2 bytes of a header of a second communication frame to be transmitted to the second transmission line if the path size has been specified from a manager system of the network; and

setting the detected index information into the H1 and H2 bytes of the header of the second communication frame if the path size has not been specified from the manager system of the network.

7. (new) A path size control method according to claim 6, further comprising the steps of:

designating the maximum bandwidth of the path previously from said manager system;

comparing the path size determined from the index information detected from the H1 and H2 bytes of said first communication frame with said maximum bandwidth; and

generating an alarm to be notified to said manager system when it is judged that the path size determined from the detected index information exceeds the maximum bandwidth.

8. (new) A cross-connecting device connected to an upstream side cross-connecting device via a first transmission line and a downstream side cross-connecting device via a second transmission line so as to relay a communication frame received from the first transmission line to the second transmission line in a Synchronous Digital Hierarchy/Synchronous Optical Network (SDH/SONET) network, comprising:

a first port connected to the first transmission line to receive a first communication frame;

a second port connected to the second transmission line to transmit a second communication frame including data extracted from the first communication frame; and

a path size determination means for detecting index information indicating the size of a path from H1 and H2 bytes of a header of the first communication frame and for setting the detected index information into H1 and H2 bytes of a header of

the second communication frame if the path size has not been specified from a manager system of the network.

9. (new) A cross-connecting device according to claim 8, wherein said path size determination means is comprised of:

a memory for storing bandwidth information indicating the maximum bandwidth of the path designated from said manager system; and

means for comparing the path size determined from the index information detected from the H1 and H2 bytes of said first communication frame with said maximum bandwidth and for generating an alarm to be notified to said manager system when it is judged that the path size determined from the detected index information exceeds the maximum bandwidth.